



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,951	03/31/2004	Rano R. Wells II	DC-105US	8355
24314	7590	03/22/2006	EXAMINER	
JANSSON, SHUPE, MUNGER & ANTARAMIAN, LTD 245 MAIN STREET RACINE, WI 53403			MILLER, JONATHAN R	
			ART UNIT	PAPER NUMBER
			3653	

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/814,951	WELLS, RANO R.	
	Examiner	Art Unit	
	Jonathan R. Miller	3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 is/are allowed.
- 6) ☒ Claim(s) 6-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/31/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>20040811</u> .  | 6) <input type="checkbox"/> Other: ____.                                    |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 6, 7, 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Stelzer.

The reference discloses a duct shell (1) made of non-magnetic material and defining a duct; a magnet mounted on the outside of the duct shell (col. 3, lines 22+); and a steel pole piece (2) protruding from the magnet through the duct shell into the duct, whereby the pole piece modifies the magnetic field such that an effective field substantially fills a cross-section of the duct at the pole piece (col. 2, lines 5+; col. 3, lines 15+).

3. With regards to claim 7, the reference discloses the magnet is an electromagnet (col. 3, lines 15+).

4. With regards to claim 9, the reference discloses the pole piece includes a tapered leading edge, whereby conveyed material does not hang up on the pole piece (col. 4, lines 42+).

5. With regards to claim 10, the reference discloses the duct shell has a substantially rectangular cross-section (Fig. 1).

6. Claims 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Robinson.

The reference discloses a duct shell (114) made of non-magnetic material and defining a duct; a magnet (112) mounted on the outside of the duct shell; and a steel pole piece (116) protruding from the magnet through the duct shell into the duct, whereby the pole piece modifies the

Art Unit: 3653

magnetic field such that an effective field substantially fills a cross-section of the duct at the pole piece (col. 5, lines 8+).

7. With regards to claim 7, the reference discloses the magnet is an electromagnet (col. 5, lines 8+).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stelzer in view of Stowe. Stelzer fails to disclose the duct shell is of stainless steel. Stowe discloses the duct shell is of stainless steel (col. 2, lines 45+). At the time of the invention, it would have been obvious to one of ordinary skill in the art to utilize a duct shell made of stainless steel in a magnetic separating apparatus because of austenitic stainless steel's non-magnetizable properties. Stelzer and Stowe are analogous art as they are from the same field of endeavor: magnetic separators.

***Allowable Subject Matter***

10. Claims 1 – 5 are allowed.

11. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not disclose or render obvious a porous membrane mounted across the inside of the duct in a plane substantially parallel to the general flow of conveyed material and dividing the duct into a material side and an air-supply side, an air-supply connection secured with respect to the duct shell to increase pressure in the air-supply side such that air flowing from the air-supply

Art Unit: 3653

side to the material side through the porous membrane assists movement of conveyed material through the duct; a magnet mounted on the outside of the duct shell; and a steel pole piece protruding from the magnet through the duct shell into the duct in combination with the other elements of claim 1.

*Conclusion*

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan R. Miller whose telephone number is (571) 272-6940. The examiner can normally be reached on M-F: 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy A. Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jrm

*Kathy Matecki*  
KATHY MATECKI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600